

ory block 14A are sequentially read by ship to and sold to numbers and then a validation error check is performed for each order record to determine whether the order record is valid. If the order record is not valid, then the next order record is read. The data validation error check includes the step of identifying the order records having an actual shipping date within a predefined time period. Order records having an actual shipment date earlier than the selected time period for the report, such as more than 5 days before to the current date, are eliminated by the validation error check.

Otherwise when the order record is valid, then the customer telephone list block 14B is read in order to identify and attach the facsimile transmission receiving telephone number for the particular customer to the order record. A customer validation error check is performed to determine whether the order record is for the particular customer as identified by the particular retrieved customer telephone number. This customer validation error check may include comparisons of the identified customer telephone number with sold to and ship to customer numbers. If the record order does not belong to the particular customer then a next telephone number is retrieved from the customer telephone list block 14B. The customer validation error check is repeated until a matching customer telephone number is identified or the end of the customer telephone list block 14B is reached. When a matching customer telephone number is not found, the order record is ignored or eliminated from the report being generated, and the next order record is read and the sequential steps are repeated. When a matching customer telephone number is found and attached to the data record, then a selected reporting schedule or frequency of the report is identified for the particular customer, that may be, for example, a daily report or a weekly report on a particular day of the week. If the current day is the identified scheduled reporting date for the particular customer then the data record including the customer telephone number is transferred to a temporary report file. Otherwise, when the current day is not the identified scheduled reporting date, the data record is ignored then the next order record is read and the sequential steps are repeated.

After the last of customer order data records stored within memory block 14A has been processed, the temporary report file is reorganized by sorting the customer data records by the attached customer telephone number. Next the customer data records in the reorganized report file are sequentially read. At each occurrence of a change in telephone number, the customer telephone number is stored and data line counters are reset. Report title information is identified by the customer telephone number from the customer data block 14C and transferred to the report block 14D. Then customer data records are sequentially transferred to the report block 14D in a predefined format corresponding generally to the desired printed output for each facsimile customer report document 34. Line counters are incremented corresponding to the numbers of the stored title lines, subtitle lines and customer data records used for formatting multiple page reports.

Referring now to FIG. 3, there is shown a flow chart illustrating the logical steps performed by the personal computer 20 under the control of the customer report conversion and control program module 22 in accordance with features of the invention. At an identified predetermined set time selected sufficiently later than the starting time for program module 18, the personal

computer 20 accesses the main frame computer system 12 to retrieve the generated customer report file stored at block 14D. As part of the file transfer request, the downloaded report file is translated from an extended binary coded decimal interchange code (EBCDIC) used on the main frame computer 12 to an American standard code for information interchange (ASCII) and stored at the report block 24.

Next a conversion routine represented by functional block 26 is performed. The stored ASCII report file is parsed into a variable number of separate customer data files C1-CN represented by storage blocks 28, identified by each customer telephone number included in the stored report file at block 24. The conversion routine also generates a command file including a corresponding telephone list for sending the separate customer data files C1-CN by facsimile transmission. The telephone dialer communications module 32 sequentially dials the customer locations of the telephone list and sends the customer data report file.

While the invention has been described with reference to details of the illustrated embodiment, these details are not intended to limit the scope of the invention as defined in the appended claims.

We claim:

1. A method of reporting order status to a plurality of customers wherein orders for products are placed by the customers prior to a certain time and wherein data relating to each order is stored in a memory as a record indicating date of the order, actual shipping date if the product requested by the order was shipped by the certain time, customer name and acceptable days of the week on which a report may be sent to the customer who placed the order and wherein a plurality of customer telephone numbers are stored in the memory separately from the records, the method comprising the steps of:

- (a) ascertaining after the certain time a current date and current day of the week;
- (b) determining which records have actual shipping dates within a certain number of days of the current date;
- (c) comparing the data of each record with the plurality of customer telephone numbers so as to associate particular customer telephone numbers with particular determined records;
- (d) identifying which particular determined records include data specifying that the current day of the week is an acceptable day on which a report may be sent;
- (e) sorting the particular determined and identified records by customer telephone number to obtain a record sequence;
- (f) using a telephone dialer to dial a first telephone number associated with a first record in the record sequence over a telephone line;
- (g) transmitting over the telephone line at least a portion of the data of the first record after the first telephone number is dialed;
- (h) using the telephone dialer to dial a next telephone number associated with a next record in the record sequence over the telephone line;
- (i) transmitting over the telephone line at least a portion of the data of the next record after the next telephone number is dialed; and
- (j) repeating steps (h) and (i) until all remaining telephone numbers associated with the remaining records in the record sequence have been dialed and